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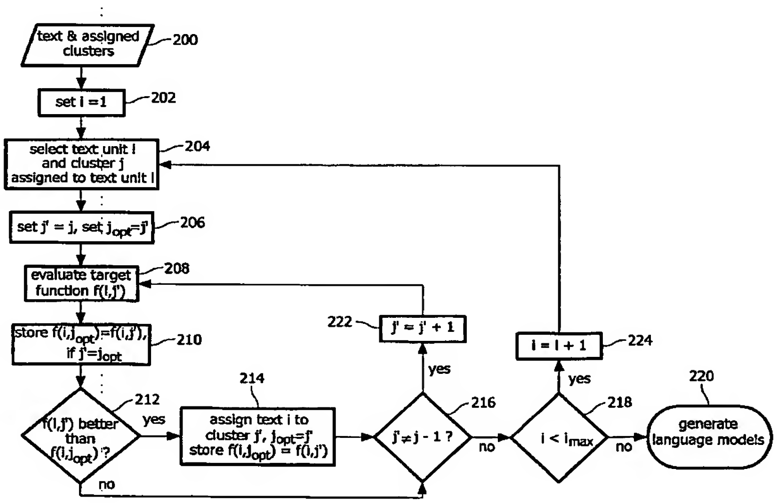
(54) Title: CLUSTERING OF TEXT FOR STRUCTURING OF TEXT DOCUMENTS AND TRAINING OF LANGUAGE MODELS


text & assigned clusters
200
set i =1
202
select text unit i and cluster j assigned to text unit i
204
set j' = j, set j_opt=j'
206
evaluate target function f(i,j')
208
store f(i,j_opt)=f(i,j'), if j'=j_opt
210
f(i,j') better than f(i,j_opt) ?
212
yes
no
assign text i to cluster j', j_opt=j' store f(i,j_opt) = f(i,j')
214
j'≠j - 1 ?
216
yes
no
j' = j' + 1
222
i < i_max
218
yes
no
i = i + 1
224
generate language models
220

(57) **Abstract:** The present invention relates to a method, a text segmentation system and a computer program product for clustering of text into text clusters representing a distinct semantic meaning. The text clustering method identifies text portions and assigns text portions to different clusters in such a way that each text cluster refers to one or several semantic topics. The clustering method incorporates an optimization procedure based on a re-clustering procedure evaluating a target function being indicative of the correlation between a text unit and a cluster. The text clustering method makes use of a text emission model and a cluster transition model and makes further use of various smoothing techniques.

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